Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
	)	
Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band	)	IB Docket No. 99-67

Further Notice of Proposed Rulemaking

Adopted: December 11,2002 **Released: December 20,2002**

Comment Date: February 3,2003
Reply Comment Date: February 28,2003

By the Commission: Commissioner Adelstein not participating.

TABLE OF CONTENTS **Paragraph**

I. INTRODUCTION

1. Over tlie last four decades. access to 9 1 1 service has dramatically improved the ability of emergency personnel to respond quickly to people in distress.[1] Effons by the tslecommunications industry. *state* and local *governments*, and the federal *government* have resulted in wireline 911 service being available to approximately 98 percent ofthe population.[2] Congress found 911 service to be of such importance that it enacred a statute codifying 9-1-1 as the national emergency telephone number.[3]

2. We here initiate a reevaluation of the scope of communications senices that should provide access to emergency services.[4] Today, wireline local exchange carriers provide 91 1 services generally pursuant to state or local provisions. Most CMRS licensees are providing basic and enhanced 91 1 service pursuant to Commission rules. In this *Further Notice*. we examine and seek comment on the need d require compliance with our basic aiid enhanced 91 1 (E911) rules. or similar requirements. by various other mobile wireless and certain wireline voice services. We consider whether existing services such as telematics or voice service provided by multi-line systems should be required to provide access to 91 1 service.[5] We also consider whether some new services should he subject to any E91 1 requirements. We seek comment throughout this ***Further Notice*** on the impact that exclusion of these services and devices from our 91 1 rules may have on consumers. as well as tlie technological and cost issues involved in providing E911, all in the context of rhc expectation **of** consumers for 9 1 1 service when they use these services and devices. In initiating this ***Further Norice***. we are mindful ofrhe need to balance the expectations of consumers to have access to 911 service with the need to continue to foster growth and competition in the telecommunications marketplace.

II. BACKGROUND

3. In 1994. the Commissioii initiated this proceeding by proposing to amend its rules to address issues raised by the provision **of** 9 1 1 and enhanced 91 1 services through certain lelecommunications technologies.[6] The Commission initially sought comment on rules that would require certain mobile

---

[1] In 1965. AT&T first announced its plans to male the three-digit number "911" available nationally as a number for accessing emergency personnel. *See* Revision of the Commission's Rules to Ensure Compatibility With Enhanced 9 1 1 Emergency Calling System,. CC Docket No. 94-102, *Notice of Proposed Rulemaking*, 9 FCC Rcd. 6170.61 72 para. 3 (1994).

[2] *See* Implementation of91 1 Act. The Use of N 1 1 Codes and Other Abbreviated Dialing Arrangements. CC Docket No. 92-105, WT Docket No. 00-1 10. *Fifth Report and Order Frrrr Reporr and Order, und Memorandum Opinion and Order on Reconsideration*, 16 FCC Rcd 22.264. 22.267 para 7 (2001) (*Fifth Report and Order*).

[3] *Wireless Communications and Public Safety Act of 1999*. Pub. L. No 106-81, 113 Stat 1286 (codified at §§ 222 and 251(e)) (911 Act).

[4] *See* 47 U S C. § 615 note

[5] "Telematics" can be generally defined as the integrated use of location technology and wireless communications to enhance the functionality of motor vehicles Additionally, we use the phrase multi-line telecommunications system (or "multi-line system") to describe a set of phone *systems* that include: a privare branch exchange (PBX). a Centrex telephone system, a key telephone systems. and a hybrid telephone system. A private branch exchange is **an** elecrronic telephone switching exchange that acts as a branch of a central *office* for the private use of an organization. ***See A.*** Michael Noll. INTRODUCTION TO TELEPHONES AND TELEPHONE SYSTEMS ai 196 (1998). Centrex **is** the use ofthe switching system at the local central office as if it were **a** PBX. *Id.* at 198. Key telephone systems serve a small number of extensions: **to** access a line. a key is depressed and a light indicates whether the panicular line is available. *Id.* **A** hybrid telephone system is a system with PBX and key telephone system features.

[6] *See generally* Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket **NO.** 94-102, *Notice of Proposed Rulemaking*, 9 FCC Rcd. 6170 (1994).

wireless licensees to ensure that their networks included features that mould make enhanced 91 I service available to their subscribers. In addition. the Commission sought commenr on amending its Part 68 rules **to** ensure the compatibiliry of private branch exchanges (PBXs) and other dispersed multi-line telephone systems with enhanced 91 I services.'

4. On June 12, 1996. the Commission adopted an order requiring certain mobile wireless licensees to implement basic 91 I and enhanced 91 I (E911) services." The *E911 First Report and Order* represented the culmination of efforts by the public safety community. the wireless telecommunications industry, and rhe Commission to improve the quality and reliability of 91 I services to wireless customers nationwide. In the *E911 First Report and Order*. the Commission specified criteria lor determining which licensees should be subject to its E91 I requirements. It required compli.nce by those licensees (1) that offered real-lime. two-way switched voice service. interconnected with the public witched network. either on a stand-alone basis or packaged with other telecommunications services: (2) whose customers clearly expected access to 91 I and E91 I. (3) that competed with analog and broadband PCS providers: aiid (4) where it is technically and operationally feasible to provide enhanced 911 service [10] Based on these criteria. the Commission determined that cellular licensees. broadband Personal Communications Service (PCS) licensees. and certain Specialized Mobile Radio (SMR) licensees.[11] collectively "covered carriers." would be required to meet b:sic aiid enhanced 91 I service requirements for completing emergency calls. including forwarding all 91 I calls without delay" and relaying a caller's Automatic Number Identification (ANI) and Automatic Location Information (ALI) to the appropriate Public Safety Answering Point (PSAP).[13]

5. The Commission exempted certain other two-way voice senices from its E911 requirements. For example. the Commission exempred Air-ro-Ground (Part 22, Subpart G)[14] and Public Coast Stations (Part *SO*. Subpart J)[15] because passengers and crew using these services did not re.y on ground-based emergency services such as 91 I or E91 I.[16] The Commission deferred a decision on whether **to** require

---

[7] ***See*** *Id*

[8] *See id* para 1

[9] *See* Revision of the Commission's Rules to Ensure Compatibility With Enhanced 91 I Emergency Calling Systems. CC Docket No. 94-102. *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 18676 (1996) (*E911 First Report and Order*).

[10] ***id*** ai 18716-18 paras. 80-84.

[11] The Commission's E91 I requirements covered only SMR licensees that held either licenses or authorizations to operate 800 MHz or 900 MHz sewice. *E911 First Report and Order*. 11 FCC Rcd 18676. 18716-18 at paras. 80-84. "Covered SMR" also included those 800/900 MHz SMR licensees that offered real-time. two-way switched voice service that was interconnected with the public switched network. either on a stand-alone basis or packaged with other telecommunications services. *EYII First Report and Order*. 11 FCC Rcd 18676. 18716-18 at paras. 80-84

[12] *See E911 First Report and Order*, 11 FCC Rcd at 18692-97 paras 19-42 (requiring covered carriers to transmit all 911 calls without subjecting them to any call validation procedures)

[13] *E911 First Report and* ***Order,*** 11 FCC Rcd 18676. 18689-18722 paras. 24-91. Recog.nizing rhr need for vigorous implementation of the E91 I requirements. the Commission adopted a phased implementation plan for the covered carriers. Phase I implementation, which requires a covered carrier to transmit a 911 caller's call-back number and cell site to the appropriate **PSAP.** began on April 1. 1998. *See* 47 C.F R. § 20.18(d). Phnse II implementation. which requires a covered carrier *to transmit a* 911 *caller's* location information to *the appropriate* PSAP. *began* on Ocrobrr 1.2001. *See* 47 C.F.R. § 20.18 (e). (h).

[14] 17 C.F.R pt. 20. subpart G

[15] 47 C F.R. pt 80. subpart J.

[16] *E911 First Report and Order*, 11 FCC Rcd 18676. 18717-18 para. 82. In the *Fifth Report and Order*. the Commission required VPC licensees. to rhe extent that they offers a land-based "real-tirne. two-way switched voice

(continued....)

compliance with its enhanced 91 I rules by multi-line systems,[17] but has continued to refresh the record on multi-line systems.[18]

6. In addition, the Commissioii concluded that given technological impediments and the coordination of international standards. MSS should not be required. at that time, to provide appropriare access to emergency services." The Commission did indicate that it would consider adopting requirements at a later time for MSS. and urged MSS providers to continue to cooperate with public safer) agencies in the development of mutually acceptable means of accessing emergency services." The Commission. however, noted that it expected that MSS prov idcrs would eventually need to comply[21] and -'provide appropriate access to emergency services. . . .[22]

7. The Commission again addressed the subject of emergency-call service for MSS users in IB Docket No. 99-67, which primarily concerns adoption of rules to facilitate and promote international circulation of customer-operated satellite earth terminals used for Global Mobile Personal Coniinunications by Satellite (GMPCS) In tlic initial Notice of Proposed Rulemaking in that proceeding. issued in 1999. the Commission also sought comment as to whether, in light of recent technological developments, it should require MSS providers to impleinent 9 I I features. subject to transitional measures to avert adverse impact on systems already in operation or at an advanced stage of development." The Commission received 30 comments and 16 replies in response to the GMPCS NPRM. representing 34 entities. Of these. 18 parties tiled comments and/or replies regarding the 91 I issues:[T]

8. In the *Norice of Proposed Rulemaking* that proposed licensing and service rules for the 2 GHz MSS. the Commission inquired whether it should require licensees in this service to implement basic and/or enhanced 91 I capabilities." In the 7 *GHz Report and Order.* the Commission acknowledged that 91 I services can save lives and that significant strides had been made in developing location technology, but found that the information in the record was insufficient to support adoptioii of specific 91 I

(...continued from previous page)
service that is interconnected with the public switched network." to comply with ihe Cornmission's wireless E91 I rules. See Implementation of 91 I Aci. The Use of N I I Codes and Other Abbreviated Dialing Arrangements. CC Docket No 92-105. WT Docket No. 00-110. *Fifth Report and Order. First Report and Order. and Memorandum Opinion and Order on Reronsiderarion.* 16 FCC Rcd 22.264 (2001) (*Fifth Report and Order*).

[17] *EY1I First Report and Order.* 11 FCC Rcd at 18678 n.1

[18] *See* Common Carrier Bureau Seeks Comment on Telident's Enhanced 91 I Pan *68* Recommendations. CC Docket No. 94-102, *Public Notice*, 11 FCC Rcd. 22.475 (1996); *see also* Common Carrier Bureau Seeks Comment on Enhanced 91 I Wireless Consensus Agreement. CC Docket No 94-102, *Public Norice.* 12 FCC Rcd. 21.323 (1997).

[19] *See First Report and Order.* 11 FCC Rcd at 18718 para. 83

[20] *Id. See also Wireless E911 Recon Order.* 17 FCC Rcd 22.665 at para. 88

[21] *See First Report and Order,* 11 FCC Rcd at 18718 para 83.

[22] *Wireless E911 Recon Order.* 17 FCC Rcd. 22,665 at para. 88

[23] Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements. Petition of the National Telecommunications and Information Adminisiration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band. *Notice of Proposed Rulemaking*, *14* FCC Rcd 5871 (1999), at ¶98. (*GMPCS NPRM*).

[24] *See* Appendix A for a listing of the commenting parties

[25] Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band. IB Docket No 99-81, *Notice of Proposed Rulemaking* 14 FCC Rcd 4843, 4885 para 94 (1999) (*2 GHz NPRM*).

requirements in the 2 GHz MSS service rules proceedin:." Therefore. the Commission decided that it would address issues concerning 911 requirements for 2 GHz MSS in the more general 911 inquiry conducted in the *GMPCS* proceeding.[27] To that end. the Commission directed the International Bureau to issue a public notice in the *GMPCS* proceeding to request additional information "regarding the technological. regulatory, and international aspects of Basic 911 and E911 for satellite services.'." Accordingly. in December 2000, the International Bureau released a public notice, and received 10 comments and six replies. accounting for a total of 11 parties." A subsequent informal meeting held between Bureau staff and several satellite licensees regarding currently used emergency call procedures provided additional inlormation in this docket.[30] The record developed thus far" provides a basis for proposing emergency call procedure requirements. in panicular the establishment of operator-statled emergency service bureaus or call centers. Based on these various records. we also now seek comment on more detailed questions concerning how MSS shotild provide access to 911 service."

9. In 1997. the Commissiun narrowed its definition of "covered SMR" to iiiclude only those SMR licensees that will directly compete with cellular aiid PCS in providing comparable public mobile interconnected service.[33] By its action. the Commission removed from its requirements those SMR licensees that primarily offer dispatch service.[34] As a means of distinguishing which SMR licensees remained under its E911 obligations. the Commission found that only those SMR licensees that have "in-network" switching capabilities should he so obligated." The Commission funner recognized, however. that certain SMR licensees that had an in-network switching capability may also offer their customers dispatch capability The Commission. therefore. concluded that covered SMR licensees that offer dispatch to customers may meet their E911 obligations to their dispatch customers by providing either

[26] Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band. IB Docket No. 99-81. ***Reporr** and Order.* 15 FCC Rcd 16127 at para. 125 (2000) *(1GHz Reporr and* ***Order).***

[27] *Id.* While the Commission declined to adopt any 911 requirements for 1GHz MSS. it did require that any handset used for 2 GHz MSS that does nor have access to basic 911 or E911 clearly indicate the lack of these functions with a label or sticker affixed to the handsets. This labeling requirement remains in effect until the Commission adopts an order in the *GMPCS* proceeding. *Id* at para. 126

[28] *Id* at para. 125.

[29] International Bureau Invites Further Comment Regarding Adoption of 911 Requirements for Satellite Services. IB Docket No. 99-67, *Public Notice*, 16 FCC Rcd. 3780 (2000) (*Satellite 911 Public Notice*).

[30] Ex Pane Meeting in IB Docket No. 99-67, Memorandum from Anhur Lechtman. Satellite and Radiocommunication Division. International Bureau. Federal Communications Commission to William F. Caton. Acting Secretary. February 22, 2002 (*Feb 22 Ex Parte Memo*)

[31] In making ihe proposals and raising the questions contained in this *Further Notice*. we consider the comments received in both IB Docket No. 99-81 (Establishment of Policies and Service Rules for the Mobile Satellite Service in the 2 GHz Band) and IB Docket No. 99-67 (both the *GMPCS NPRM* and the *Satellite* ***911*** *Public Notice*). *See* Appendix A.

[32] *See infra* paras. 17-56.

[33] *See* Revision ofrhe Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems. CC Docket No. 94-102, *Memorandum Opinion and Order*, 12 FCC Rcd 22665, 22703-05 paras. 78-83 (1997) (*Wireless E911 First Recon Order).*

[34] *Id.*

[35] *Id* at 22703-04 para. 78. The Commission chose this network capability because "in-network" switching allows for seamless hand off of calls and allows for frequency reuse. rhus allowing the SMR licensees to accommodate a larger group of customers, which enables the SMR licensee to compete directly with cellular and PCS. *Id.*

direct 911 dialing or. alternatively. by routing dispatch customers' emergency calls through a dispatcher.'"

10. In 1999, Congress established 911 as the universal eniergency service number.[37] Through the 911 Act. Congress sought to "facilitate the prompt deployment . . . of a seamless. ubiquitous. and reliable end-to-end infrastructure for communications. including wireless communications. to meet the Nation's public safety . . . needs."[38]

III. DISCUSSION

11. In this proceeding, we are seeking comment on whether providers of various services and devices not currently within the scope of our 911 rules should. consistent with the public interest. be required to provide access to emergency services. We also ask what type of information, such as call-hach and location should be delivered to PSAPs on a service-by-service basis. We begin by setting out and seeking comment on the genera! criteria that we want commenters to use in analyzing whether tlic enumerated services and devices should he included within the scope of services hat offer 911 service.[39] We then turn to the individual services and devices on which we seek comment and raise additional questions where needed. For example. in each of the sections below we ask commenters to address the Cornmission's legal authority over either the entity that manufactures the device or that provides the service to the general public. We seek comment on those services aiid devices that offer voice communications to their end users.

A. General Criteria

12. We begin by seeking comment on the criteria the Commission should use in analyzing whether a particular class of providers should he required to comply with our basic aiid enhanced **911** requirements. or with similar requirements. We recognize that we are reviewing sen ices and devices that vary greatly over technologies and are at different stages of development. We believe that by establishing criteria of general applicability, the Commission will he able to provide a transparent methodology for determining which classes of services and devices may he expected to comply with our E911 rules. Moreover. by establishing a list of general criteria. we provide commenters a basis on which to make their arguments for or against inclusion of providers of a particular service or device.

13. We thus seek comment on our proposed analysis of different types of services and devices starting with the criteria that guided our decision in the *EYII First Report and Oraer.*[40] Based on those criteria. we propose analyzing each service or product based on whether: (1) it offer real-time, two-way voice service that is interconnected to the public switched network on either a stand-alone basis *or* packaged with other telecommunications services: (2) the customers using the service or device have a reasonable expectation of access to 911 and E911 services: (3) the service competes with traditional CMRS or wireline local exchange services: and (4) it is technicall) and operationally feasible for the service or device to support E911.[41] Underlying the Commission's earlier decisions on 911 service was an understanding that the customers of "public telephone services" expect access to 911 and E911 services."[42] So. for example, in the *E911 First Report and* ***Order.*** the Commission required CMRS.

---

[36] *Id.* at 72704 para 79.

[37] *See Wireless Communications and Public Safety Act of 1999*

[38] ***See*** *Wireless Communications ond Piihlic Safety Act of 1999*

[39] ***E911*** *First Report and* ***Order.*** 11 FCC Rcd at I8716-18 paras. 80-84.

[40] *Id.*

[41] *Id* at 18716 para. 81.

[42] *Id.* at 18716 para. 80.